EPOXY POWDER COATING (LOW GLOSS BLACK)

DOCUMENT IDENTIFIER: A-SP-EL00092-04-A48X Rev B, 20-Dec-1989

REVISION HISTORY: Rev A, 23-Dec-1986
Rev B, 20-Dec-1989

PURPOSE

This finish shall be used when low sheen is desirable with other properties offered by epoxy powder coatings.

APPEARANCE QUALITY

Unless otherwise specified, this finish shall meet a quality level of 4, per *DEC STD 092-1 Finish and Color Standard - Finish Standard for Applications*.

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APPROVAL:

Art Clockedile, Systems Materials Engineering

GLOSS

The gloss shall measure 5 ±3, per *DEC STD 092-3 Finish and Color Standard - Finish Material Test Requirements*.

COLOR

Black, not intended to match Digital 092-XXXX-094 Lamp Black.

PHYSICAL PROPERTIES

The following tests shall be run in accordance with DEC STD 092-3.

Film Thickness - Unless otherwise specified on the part drawing, the coating thickness shall be 0.002 to 0.004 inch.

Adhesion (Cross Hatch Test Method) - This finish shall pass the cross hatch test method of adhesion testing.

Note

The following physical properties tests shall be run on Bonderite 1000 test panels, coated to a thickness of 0.002 inch.

Flexibility - Use a 1/4-inch diameter mandrel.

Impact - Use a Gardner impact tester, the coating shall withstand 50 inch-pounds, both direct and indirect.

Salt Spray - The coating shall withstand 1000 hours salt spray.

Humidity - 1000 hours humidity.

Scratch Hardness - 900 grams.

Taber Abrasion (Weight Loss Test Method) - There shall be no more than 70 milligrams weight loss per 1000 cycles.

Solvent Resistance - Use MEK as the solvent.

Dielectric Strength - This coating will yield approximately 700 volts dc dielectric strength per each mil of coating thickness.

SURFACE PREPARATION

All surfaces (Pretreatment) must be cleaned to render them free from grease, oil, rust, or any other contamination. Any standard cleaning method, such as alkaline cleaners, solvents, or vapor degreasing, is acceptable if it does not harm the metal substrate.

Steel Parts (refer to Digital specification 092-C25X-XXX) after proper cleaning, shall be coated with a suitable iron phosphate or zinc phosphate prior to coating.

Aluminum, aluminum castings, and zinc castings shall be prepared for coating with a suitable iron or zinc phosphate, or a chemical chromate conversion coating per Digital specifications 092-C20X-XXX or 092-C28X-XXX.

APPLICATION

The normal application will be electrostatic spray.

Approved Material Corvel Flat 10-7011
Supplied by Morton International, Powder Coatings Division.